



(19)

(11) Publication number:

**62134956 A**

Generated Document.

## PATENT ABSTRACTS OF JAPAN

(21) Application number: **60276269**

(51) Intl. Cl.: **H01L 25/00 H05K 1/18**

(22) Application date: **09.12.85**

(30) Priority:

(43) Date of application  
publication: **18.06.87**

(84) Designated contracting  
states:

(71) Applicant: **TDK CORP**

(72) Inventor: **YAMANAKA TOMOYUKI  
KOIKE HITOSHI  
NAKAI SHINYA**

(74) Representative:

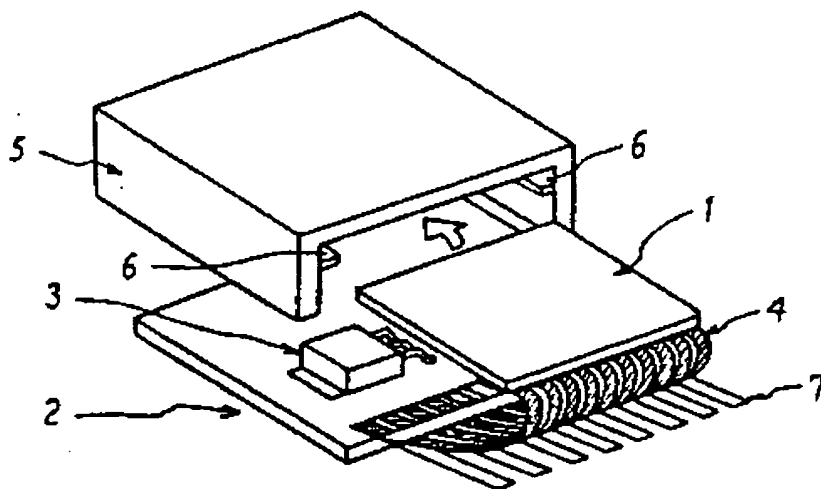
### (54) POWER HYBRID INTEGRATED CIRCUIT

(57) Abstract:

**PURPOSE:** To enhance reliability of an element of a controller which is weak with heat by composing a substrate of a power section of a material having better thermal conductivity than that of a control section.

**CONSTITUTION:** A power section having a large heat generation and a controller are separately composed to be thermally separated. That is, an upper substrate 1 is composed of an  $Al_2O_3$  substrate, the controller is placed thereon, and a lower substrate 2 having a power element is composed of a sintered  $AlN$  having better thermal conductivity than the substrate 1. The substrates 1, 2 are connected by a flexible cable 4, and the substrate 1 is slid to a back side groove 6 in a resin case 5 to be integrated within the case 5.

**COPYRIGHT:** (C)1987,JPO&Japio



BEST AVAILABLE COPY